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Technical Report 875



# Identification of Command Post Exercises (CPX) and Field Training Exercises (FTX) Messages

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and James W. Lussier
U.S. Army Research Institute



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Command groups are increasingly turning to computer-driven command post exercises (CPX) as an economical and convenient means of training. The overall realism of this method of training relies heavily on the capabilities of the control staff, who must act as key personnel in the units at echelons above, below, and adjacent to the training audience. The controllers must generate a stream of realistic tactical messages, while attending to a myriad of other duties that place demands on their time. Further, this task is not well supported by the current generation of battle simulations. Automating the production of realistic messages is one solution to the problem. This report examines whether experienced Army officers can distinguish between messages produced in a CPX and FTX environment and investigates the characteristics of the messages that contribute to successful identification. The research will identify requirements for a system to automate the translation of simulation output into realistic messages.

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## FOREWORD

The U.S. Army Research Institute, Fort Leavenworth Field Unit, conducts a systems and training research program that supports the Combined Arms Center (CAC).

For several years the Fort Leavenworth Field Unit has been involved in research to support the development and use of computer-driven battle simulations for training battalion through division command groups. A pressing problem with the current generation of battle simulations is the burden placed on controllers, who must, in addition to many other duties, generate a stream of realistic tactical messages. This research will contribute to identification of requirements for an automated system to translate simulation output into more realistic messages, thereby improving training realism and reducing controller overload.

This research was an exploratory effort funded under Research Task 1301. It compares the ability of experienced officers to identify messages transcribed from command post exercises with their ability to identify similar messages transcribed from field exercises. It also investigates which characteristics of messages are most salient in identification.

EDGAR M. JOHNSON
Technical Director

IDENTIFICATION OF COMMAND POST EXERCISES (CPX) AND FIELD TRAINING EXERCISES (FTX) MESSAGES


## EXECUTIVE SUMMARY

Requirement:

Command groups are increasingly turning to computer-driven command post exercises (CPX) as an economical and convenient training mode. The overall realism of this method of training relies heavily on the capabilities of the control staff, who must play the roles of key personnel in the units at echelons above, below, and adjacent to the training audience. The controllers must generate an information stream of realistic tactical messages while attending to a myriad of other duties that place demands on their time. Furthermore, this task is not well supported by the current generation of battle simulations. Automating the production of realistic messages is one solution to this problem. This study was designed to provide information that would contribute to identification of the requirements for a system to automate the translation of simulation output into realistic messages.

Procedure:

Thirty-one company grade combat arms officers participated in this study. Participants were presented with 48 stimulus messages in written text (24 CPX and 24 FTX) and asked to identify the training environment in which they originated. Each message was further evaluated on four semantic differential scales: wordy-succinct, vague-precise, worthless-valuable, and excited-calm. The participants were also asked to respond to a questionnaire that assessed their beliefs concerning characteristics of CPX and FTX messages and that obtained participant demographic information.

Findings:

The majority of the officers who participated in this study expressed the belief that CPX and FTX messages could be distinguished based upon certain characteristics. However, their actual performance in classifying messages was better than chance but less accurate than anticipated.

The participants were also questioned concerning FTX and CPX message characteristics. The message characteristics believed to be most salient were as follows: CPX messages are longer than FTX; also CPX messages are less emotional and contain more accurate information than FTX messages. On the semantic differential scales, participants rated CPX messages as more succinct, precise, and valuable than FTX messages. The major difference between the two data sources was in message length. Participants expressed the belief that CPX messages are longer than FTX messages but rated CPX messages as more succinct on the semantic differential scale.

Utilization of Findings:

The information obtained in this study will contribute to identification of requirements for an automated system to translate simulation output into more realistic messages.

The characteristics that appear to be salient in message identification should be used to translate CPX into FTX-like messages. These translated messages should then be tested to determine if experienced officers perceive them as realistic FTX messages.

IDENTIFICATION OF COMMAND POST EXERCISES (CPX) AND FIELD TRAINING EXERCISES (FTX) MESSAGES

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IDENTIFICATION OF COMMAND POST EXERCISES (CPX) AND FIELD TRAINING EXERCISES (FTX) MESSAGES

## Introduction

AirLand Battle doctrine relies heavily on command and control ($C^2$) to ensure battlefield success. Commanders and their staffs must perform their $C^2$ functions in a synchronized, coordinated manner in a highly dynamic environment. Their successful battlefield performance depends upon how well they have been trained; however, the opportunity for training is relatively infrequent.

Field exercises (FTXs) provide good "hands-on" training opportunities for command teams. However, training in this mode is very expensive. Furthermore, FTX training is extremely complicated to organize and execute, which further restricts the frequency with which FTX training is conducted.

Command groups are increasingly turning to computer-driven command post exercises (CPXs) as an economical and convenient training mode. These training systems, such as ARTBASS[1], enable commanders and their staffs to practice their command and control functions under simulated battle conditions. However, the overall effectiveness and realism of this method of training relies heavily upon the capabilities of the control staff.

Controllers must play the roles of key personnel in the units at echelons above, below, and adjacent to the training audience. This role playing function provides the training audience with insulation from the computer and also provides them with communication training (Solick and Lussier, 1988).

Controllers must also, among other duties, generate an information stream of realistic tactical messages based on the simulation output. This task is not well supported by the current generation of battle simulations. For instance, simulation output compromises message traffic realism by providing too much intelligence information and too little detail. An illustrative example of this is provided by Solick, et al (1988):

> "For example, a sensor report might include a complete opposing force unit designation or an exact center-of-mass location, whereas a realistic report might provide an estimate of the number of vehicles sighted, type of vehicles, approximate location and direction." (p. 24)

The translation of the computer output to tactical messages is performed by controllers in addition to the other numerous tasks which place demands upon their time, such as directing simulated subordinates, keeping themselves apprised of the tactical situation, and coordinating with other control elements. Automating the production of realistic message traffic is one solution to this problem.

This report examines whether Army officers who have experienced both FTX and CPX training at the battalion level can distinguish which training environment produced a set of stimulus messages and investigates the characteristics of the messages that contribute to successful identification. This information will contribute to the identification of requirements for an automated system to translate computer output into realistic messages.

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1ARTBASS - Army Training Battle Simulation System

## Method

<u>Participants</u>: The participants in this study were 31 company grade combat arms officers (6 2Lt.; 16 1Lt.; 9 Cpt.) who volunteered their time during May, 1988.

<u>Data Collection Software and Procedures</u>: Data for this study were obtained through the use of MSGJUDGE software developed by Vruels Research Corporation under contract to the Army Research Institute (see Solick, Libehaber, Obermayer, Linville, and Obermayer, 1989). MSGJUDGE is a measurement instrument for the computer administration of a set of written messages from two or more different environments to a panel of expert judges. Written messages were used in this study rather than actual taped oral messages because of the difficulty in obtaining taped messages which were uniform in quality from both training environments. MSGJUDGE collects data in the form of responses to semantic scales, forced-choice questions, and a summary questionnaire. The software was pilot tested prior to use in this study. Information concerning the pilot data collection is contained in Solick, et al, (1989).

In the present study, 48 messages were presented to each participant. The original pool of 292 messages was composed of 73 messages in each of the four categories (CPX enemy operations, CPX friendly operations, FTX enemy operations, and FTX friendly operations). Twelve messages were randomly selected from the 73 in each of these groups for presentation to subjects. A list of the 48 items which were administered, and the classification of each item, is attached as Appendix A.

For administration, a participant was presented with a stimulus message which was displayed across the top of his computer screen; each of four bipolar scales successively occupied the screen below. The four semantic scales used for this study were: wordy-succinct, vague-precise, worthless-valuable, and excited-calm. Rating was on a 7 point scale ranging from -3 to +3. For any given message, all of the semantic scales were administered one at a time until all measurement was complete for that message. The following example shows the configuration of the screen for the semantic measurement.

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     Message:  We have detected 2 BMP at 256 947.

                   -3 -2 -1  0  +1 +2 +3
          Wordy   :  :  :  :  :  :  :  :   Succinct
                             |
                          Pointer

- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

The next screen showed the same message with another semantic scale, and this was repeated until all four scales were administered. At that time, a new message was presented and the scales were repeated.

When all messages had been presented for semantic measurement, the same messages were again presented in a forced-choice format (CPX or FTX). The screen configuration for this segment of the measurement is shown in the following example:

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Message: We have detected 2 BMP at 256 947.

In this message from a CPX or FTX?
Enter first letter from choice:

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Finally, the participants were presented with questions which obtained demographic information and assessed beliefs concerning various characteristics of FTX and CPX messages.

## Results

### Message Identification:

Participants were asked to identify whether each of 48 messages originated in an FTX or a CPX environment. The number of the messages identified correctly (out of a total of 1488) for both categories and subcategories is presented in Table 1.

Table 1

Message Identification - Number Correct

| | Enemy | Friendly | Total |
|---|---|---|---|
| FTX | 235 | 254 | 489 |
| CPX | 165 | 210 | 375 |
| Total | 400 | 464 | 864 |

A two-way analysis of variance of the number of correct identifications indicated that FTX messages were correctly identified significantly ($p. < .01$) more often than CPX messages, and messages with friendly operations content were correctly identified significantly ($p. < .01$) more often than messages with enemy information content, regardless of their FTX or CPX classification.

### Semantic Differential Ratings:

Participants were asked to rate each message on four semantic differential scales: wordy-succinct, vague-precise, worthless-valuable, and excited-calm.

These ratings were obtained in order to ascertain if these semantic characteristics were useful in identifying their FTX or CPX origin and could be used to develop rules for making CPX messages more like FTX messages. The participants classified CPX messages as more succinct, precise, valuable and excited than FTX messages. The mean rating for each scale is presented in Table 2. The 48 messages with their mean rating on each semantic differential scale are presented in Appendix A.

A discriminant analysis of the semantic differential ratings indicated that three of the scales were useful in predicting classification. These scales, in order of importance of their contribution, are: vague-precise, wordy-succinct, and worthless-valuable. The excited-calm scale added no independently useful information to the equation.

Table 2

Semantic Differential Scales-Mean Ratings

| Scale | FTX | CPX |
|---|---|---|
| Wordy - Succinct | .45 | 1.58 |
| Vague - Precise | -.33 | 1.00 |
| Worthless - Valuable | .60 | 1.60 |
| Excited - Calm | -.02 | .24 |

Demographic and Attitude Questions: Participants were asked to respond to 24 questions concerning their experience with FTX and CPX training environments and concerning their attitudes and beliefs pertaining to messages obtained in the two environments. These questions, together with responses, are presented below.

1. Have you ever participated in a Command Post Exercise (CPX)?

Response: Yes = 90.3%
No = 9.7%

2. Have you ever participated in a Field Training Exercise (FTX)?

Response: Yes = 100.00%

3. Do you think it is possible, in general, to tell CPX messages from FTX messages?

Response: Yes = 61.3%
No = 38.7%

Do you consider the following to be recognizable differences between CPX and FTX messages?

4. Length of Transmission:

Response: Yes = 71.0%
No = 29.0%

5. Vocabulary:

Response: Yes = 83.9%
No = 16.1%

6. Emotion of the Speaker:

Response: Yes = 80.6%
No = 19.4%

7. Speaker, i.e. First Person Voice or Third Person:

Response: Yes = 64.5%
No = 35.5%

8. Completeness of Sentences:

Response: Yes = 74.2%
No = 25.8%

9. Accuracy of Descriptions:

Response: Yes = 90.3%
No = 9.7%

10. Passive Voice vs Active Voice:

Response: Yes = 77.4%
No = 22.6%

11. Present Tense Speaker vs Past Tense Speaker:

Response: Yes = 48.4%
No = 51.6%

12. Use of key "tip-off" words:

Response: Yes = 80.6%
No = 19.4%

13. Do you think the transmissions will be longer in an FTX or CPX?

Response: FTX = 35.5%
CPX = 64.5%

14. Will the speaker be more emotional in a CPX or FTX?

Response: FTX = 93.5%
CPX = 6.5%

15. Will the speakers have a more varied vocabulary in an FTX or in a CPX?

Response: FTX = 51.6%
CPX = 48.4%

16. Will the transmission contain more accurate information if from a CPX or from a FTX?

Response: FTX = 9.7%
CPX = 90.3%

17. Do you feel that the quality of training can be affected based on the realism of radio transmissions that describe the battlefield to the Commander and staff?

Response: Yes = 93.5%
No = 6.5%

18. Have you ever participated at an opposing force exercise at the National Training Center?

Response: Yes = 80.6%
No = 19.4%

19. Have you ever participated in a CPX using ARTBASS?

Response: Yes = 64.5%
No = 35.5%

20. Which environment, CPX or FTX, provides the best training for yourself?

Response: FTX = 93.5%
CPX = 6.5%

21. Which environment, FTX or CPX, provides the best training for the battalion staff?

Response: FTX = 58.1%
CPX = 41.9%

22. The self-administered program you just completed is the initial phase of a project to describe differences in communications between CPX and FTX. The goal of the project is to provide more realistic training environments. Do you think this self-administered message judgment program will show those differences?

Response: Yes = 48.4%
No = 51.6%

23. I also wish to determine if there is a training difference between CPX and FTX. I am going to use the differences in message traffic to describe that difference. Do you think this program will help to identify the training differences?

Response: Yes = 58.1%
No = 41.9%

24. Is this type of research, determining differences between CPX and FTX messages to improve training, beneficial to the Army?

Response: Yes = 71.0%
No = 29.0%

## Discussion and Conclusions

As currently practiced, CPX training does not provide realistic tactical messages for the training audience. This is primarily because the controllers, who are responsible for message generation have too little time and too great a workload to adequately produce realistic messages. There is a widely hold view, supported by the majority of the Army officers who participated in this study, that the quality of training can be affected by the realism of messages that describe the battlefield to the Commander and staff. These participants also indicated that they believe that they can distinguish messages generated in a CPX environment from messages generated in an FTX environment. The purpose of this study was to determine if CPX and FTX messages could, in fact, be distinguished, and to ascertain which characteristics of the messages were most salient in this identification. Ultimately, this information could be used to either automate the message generation process or provide guidelines for controllers which would contribute to the production of more realistic messages as well as reduce controller workload.

The results of this study indicate that the participants could distinguish CPX from FTX messages, but their accuracy was somewhat less than anticipated. Although classification accuracy was significantly better for FTX messages than for CPX messages, this could have been the result of a general FTX response bias when in doubt about a message's true classification.

Nevertheless, the participants expressed strong beliefs concerning the salient characteristics which distinguish CPX messages from FTX messages. Participants expressed the belief that CPX messages are longer, less emotional and contain more accurate information than FTX messages. Additionally, they believe that CPX and FTX messages can be distinguished on the basis of vocabulary and "tip-off" words.

The analysis of the semantic differential ratings yielded similar results. Participants rated CPX messages as more succinct, precise and valuable than FTX messages. There was a discrepancy here in that CPX messages were rated as more succinct, but participants expressed the belief that they are longer than FTX messages. The fact that the calm-excited scale failed to provide any additional information could be explained by the fact that the stimulus messages were presented in the form of written text rather than spoken form, which would provide more opportunity for projection of emotion.

Although further research may be needed to resolve the discrepancy in the results concerning the saliency of message length in message classification, the information obtained in this study has been formulated into rules for generating more realistic CPX messages. These rule-generated messages were tested to determine if participants would perceive them as FTX messages. The results of this study are presented in Lussier, Solick, Keene and Linville (1989). The following example demonstrates how this transformation process may work.

| | |
|---|---|
| Original Alert Message: | HA/B/3-41 visually detected at NK 320 321 1 T64. |
| Transformation Message: | I've got a lone T-64 off to the North of my position. Looks like it may be disabled, but can't tell for sure. |

In this example, the CPX simulation alert message was made more realistic by adding uncertainty and vagueness. When the transformed version of this message was presented to participants, 87% perceived it as a FTX message (Lussier, et al 1989).

## References

Lussier, J. W. Solick, R. E., Keene, S. D., and Linville, J. M. (In preparation, 1990). Construction of Realistic Messages from Computer Generated Alert Messages (ARI Technical Report 871). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

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| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| Spot report. BMP with dismounted troops, 083 765. | F | EE | 2.000 | .448 | .958 | .165 |
| Incoming redbirds. | F | EE | 2.342 | -2.413 | -1.329 | - .626 |
| Roger, my element at 60 attempting to fight, but there's too many of them. | F | EE | - .635 | -1.084 | .269 | -2.242 |
| Gas, Gas. Bravo Papa 60. | F | EE | 2.965 | 2.339 | 2.726 | -2.226 |
| Roger, moving East, 3 T72s. Grid 589 116. | F | EE | 2.123 | 1.690 | 2.190 | .665 |
| I want to roll to 60. Move to Bravo Papa 60. We are being penetrated in the rear. You have to bring what you've got right into 60. | F | EE | -1.468 | -1.481 | .065 | -1.445 |
| A10 aircraft says 15 T72s proceeding North through red pass on the road. | F | EE | 1.723 | 1.794 | 2.387 | .381 |
| Roger, I anticipate a small penetration. Right now we are counter attacking. I will keep him informed. | F | EE | .890 | .032 | .774 | .168 |

[1] C = CPX
F = FTX

Some messages contain both friendly and enemy information and were coded both ways. One CPX and one FTX message was randomly selected in both categories.

[2] EE = enemy operations
RO = friendly operations

[3] A = wordy-succinct; C = worthless-valuable;
B = vague-precise; D = excited-calm

| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| I now have 02 of line 1, item 1 left. Had a close in fight with what we thought was a dead BMP. He was just playing possum. Killed three of mine. | F | EE | -1.342 | - .719 | .842 | - .045 |
| We have 21 Victors coming out of the wheel gap at this time. | F | EE | 1.426 | .548 | 1.374 | - .210 |
| Four identified columns. Lead element of first column 486 023. Approximately 35 Victors. Second column 545 025. Heading north, also. Approximately 35 Victors. Third column vicinity the whale gap is stationary, vicinity 485 987 heading North, correction, stationary column. Final column, 516 024, approximately 30 vehicles heading North. | F | EE | - .165 | 2.458 | 2.790 | .516 |

[1] C = CPX
F = FTX

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B = vague-precise; D = excited-calm

| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| Stay off the net a second. Most of the forces are East of me. It looks like they are bypassing us. I'm moving mine in a counter attack right now against them. If you look for the smoke you can see where the battlefield is. If you've got anything left, aim it in that direction. They should direction. They should be coming in your range soon. | F | EE | -2.200 | -1.074 | .139 | -1.029 |
| Roger, that's me and what I got left that rolls. | F | RO | 1.032 | -2.284 | -1.884 | 1.035 |
| Observing artillery, grid 585 170. Continuing mission. | F | RO | 1.955 | 1.413 | 1.465 | 1.590 |
| Orienting my force here. Due South to engage. | F | RO | 1.445 | -2.071 | -1.245 | 1.058 |
| Line 1, item 1, 02. Holding position with what's left. Distributing ammunition among what vehicles are remaining alive. | F | RO | 1.323 | .974 | 1.316 | .765 |
| Roger, we're taken down. There's only one left. He's headed for Uniform. One T72 and one BMP left. | F | RO | - .090 | - .652 | 1.068 | -1.100 |

[1] C = CPX
F = FTX

Some messages contain both friendly and enemy information and were coded both ways. One CPX and one FTX message was randomly selected in both categories.

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| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| I'm clean. I can't come over there. I have been on the horn to Yankee, talking to their 37, their 22. The party had a mission to come 1 kilometer and linkup. He's lost and he's looking for them. Since I can't get in there, how about you getting out and sorting this out. And seeing if there's a representative from Yankee, in order to begin operations. | F | RO | -3.000 | -1.535 | - .587 | .458 |
| Mike 08 says that as far as he knows all friendly units have passed the lane. Requesting permission to close at this time. I was trying to get a hold of 47 to see if D47 has contacted him, whether or not all friendly units have passed. | F | RO | -1.400 | - .190 | .652 | 1.016 |
| Roger, my element at 60 attempting to fight, but there's too many of them. | F | RO | .442 | -1.481 | .100 | -1.784 |
| I'm coming that way. I'm headed right for your own position. I'll reinforce you and meet you there. | F | RO | - .745 | - .865 | .358 | - .626 |

[1] C = CPX
F = FTX

Some messages contain both friendly and enemy information and were coded both ways. One CPX and one FTX message was randomly selected in both categories.

[2] EE = enemy operations
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| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| As far as I know, they have passed. | F | RO | 1.426 | -2.416 | - .981 | 1.255 |
| Roger, friendly force moving off to our West, on main East/West. | F | RO | .806 | -1.194 | - .016 | .842 |
| My element in 60 North had nothing to shoot at. I'm moving him to get the enemy in the rear. | F | RO | .187 | - .300 | .742 | .855 |
| We have detected 2 BMP at 256 947. | C | EE | 2.103 | 1.235 | 1.861 | 1.010 |
| Spot report from Scout 1, an unknown enemy spying on him from 311 899. | C | EE | .226 | - .919 | .719 | .994 |
| Have destroyed 1 APC vicinity 366 920. Have visually detected 9 personnel at 336 956. Northern element has also detected 9 personnel at same location. | C | EE | 1.058 | 2.535 | 2.639 | 1.267 |
| Detected 3 ZIL 131 trucks grid 389 901. | C | EE | 2.410 | 2.339 | 2.165 | 1.368 |
| Roger, I need artillery at 290 909. 1 BMP, 1 BDRM, stationary. | C | EE | 2.390 | 2.123 | 2.290 | - .029 |

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B = vague-precise;; D = excited-calm

| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| Receiving indirect fire on position. South 1, West 2, on A 04, correction A 01. | C | EE | 1.977 | 1.116 | 1.561 | - .229 |
| Spot report. T&E detected 7 BMPs total. 3 BMPs moving East, 272 961. 4 BMPs moving east from 276 966. | C | EE | 2.429 | 2.452 | 2.790 | .987 |
| Bandits, bandits, bandits. 32 90 and 35 90, HIND Ds. Acknowledge. | C | EE | 2.332 | .842 | 2.265 | -1.997 |
| Roger, taking fire at this time, taking fire at this time. | C | EE | .594 | -1.274 | .216 | -2.268 |
| Roger, one more confirmed kill on BMP at 372 891. | C | EE | 2.277 | 2.019 | 1.777 | 1.742 |
| I've got these BMPs and a tank platoon it seems down in the southern sector. I've got seven BMPs in the North. What are we facing? | C | EE | - .839 | - .965 | .094 | -1.003 |
| Roger, Have destroyed one more BMP at vicinity 366 920. | C | EE | 2.181 | 2.248 | 2.035 | 1.187 |

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| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| Those HIND Ds blew away all 4 tanks in 1 platoon. | C | RO | .600 | - .639 | .987 | -1.506 |
| Artillery has ceased at this time, and no casualties taken. | C | RO | 1.126 | .584 | 1.339 | 1.116 |
| Receiving indirect fire on position. South 1, West 2, on A 04, correction A 01. | C | RO | .900 | .955 | 1.090 | - .984 |
| Both radar up. | C | RO | 2.452 | .110 | .765 | 1.474 |
| We spotted three more batteries moving, correction three BMPs moving East from 327 899, have exchanged fire. Believe two BMPs destroyed. | C | RO | .419 | 1.203 | 1.700 | - .890 |
| Current location 2.2 South, 1.7 West of A 04. Receiving indirect fire, rear of position. | C | RO | 1.742 | 1.548 | 1.852 | .935 |
| Am engaging 2 T64s at grid 372 917. | C | RO | 2.732 | 2.155 | 2.526 | .048 |
| 1 in the northern, 2 in the southern. | C | RO | .890 | -1.990 | - .952 | .506 |

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| Message | Classification[1] | Type[2] | Semantic Scale[3] A | B | C | D |
|---|---|---|---|---|---|---|
| Element at 466 930 under heavy air attack. | C | RO | 2.494 | 1.219 | 1.974 | .639 |
| Spot report: 3 BMPs moving East grid 394 968. Also 2 more BMPs moving East grid 285 957. Taking fire at this time. | C | RO | 1.787 | 1.890 | 2.645 | .329 |
| I've got visual detection, 5 T64s, vicinity 361 906, has returned fired. Have one confirmed kill. | C | RO | 1.674 | 1.510 | 2.110 | .013 |
| Roger same element has destroyed 1 BDRM located 388 927. | C | RO | 2.100 | 1.700 | 2.094 | 1.074 |

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